Beyond Slonimsky
Melodic Patterns For Guitar
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Nicolas Slonimsky’s *Thesaurus of Scales and Melodic Patterns* has been cited by creative musicians as different as Arnold Schoenberg, John Coltrane, Frank Zappa and Buckethead as a source of advanced material for the construction of melodic lines and dizzying solo patterns. Yet it’s a pretty difficult book for the average guitarist to get into, and it definitely wasn’t designed with the instrument in mind. It’s fair to say that it’s more often talked about than read, and a lot of musicians have a copy on their shelves with which they’ve made very little progress.

This book has two aims. The first is to present the main idea behind the first twelve chapters of Slonimsky’s book in a way that’s accessible and logical for the modern musician. The second is to present some patterns based on this idea in both standard notation and guitar tablature, organised according not to Slonimsky’s rather abstract octave divisions but to note-content, a far more useful method for most purposes. The patterns presented here are different from those in the *Thesaurus*, which this book aims to supplement.

I’ve felt at liberty to completely reinvent Slonimsky’s language and theoretical approach in order to make the material more accessible. It’s important to me that the reader doesn’t just have to play these patterns ‘blind’ and hope to get something they want to memorise. I want you to understand the theory well enough to understand Slonimsky’s patterns from the inside out and be able to generate them on the fly without relying too heavily on rote. That said, you’re free of course to skip the theory and dip into the book at random – that may even be a good way to start engaging with this material, especially if you find the theory a bit dry.

Like Slonimsky I’ve presented these patterns as unbroken runs of sixteenth-notes.
One pitfall of this is that it attracts the complaint that the material is ‘unmelodic’. The key word in the title is not, however, ‘melody’ but ‘melodic pattern’. Rhythm, tone, phrasing, style and so on are entirely up to you to come up with. Many people who use Slonimsky patterns use them to generate fast runs but you may also find they inspire more tuneful material. As with anything worthwhile, it’s there to be worked with.

Students may find my previous book, *Scale and Arpeggio Resources for Guitar*, useful for filling in some scale theory and providing standard CAGED fingerings for all the scales used in this book.

1.1 Slonimsky’s Recipe

Everything we will be dealing with is based on one fairly simple concept that underpins first twelve main chapters of Slonimsky’s *Thesaurus*. It’s a recipe for making a certain kind of melodic pattern. It’s a slightly complicated recipe and I’ll spend much of this chapter doing my best to make it absolutely clear to you what the recipe is and how to use it. The rest of the book will work through the various kinds of result it can produce. The recipe is my own description, in my own terms, of how to generate the patterns Slonimsky generates, and many more; it is not an attempt to restate or reconstruct his own theory about what he was doing, which can be found in the introductory chapter of the *Thesaurus*.

So what was Slonimsky’s big idea? As I said, it’s a recipe, but it’s complicated because it’s a bit like two recipes, one inside the other. The first gives you a system of ‘base’ pitches and the second recipe fills in additional pitches within this structure. The first is a bit like an architectural plan and the second is more like the decoration. I call these the *base* and the *ornament*\(^1\). The two steps are to first build the base and then use the ornament repeatedly to ‘decorate’ it. The fundamental idea is that the base is a set of notes and the ornament is a pattern (like a fingering shape on the guitar); we move the pattern from one note of the base to the next and play it each time before moving on. Let’s see how this works in detail.

1.1.1 Stage One: Constructing the Base

First take a certain number of octaves – that is, usually, all the notes between some C and a C that many octaves above it, including the bottom C but not including

---

\(^1\)Almost all the terminology in this book is mine, not Slonimsky’s. His own terminology seems unnecessarily alienating to me, but of course your mileage may vary.
1.1. *SLONIMSKY’S RECIPE*

the top C. Here, for example, we’ve taken 2 octaves:

![Diagram of notes](image1)

Now you’ll find there are a limited number of ways you can divide these notes up into equal parts. Our two octaves contain 24 notes, which can be divided into three equal parts by grouping the notes in eights:

![Diagram of notes](image2)

or 12 equal parts by grouping the notes in pairs:

![Diagram of notes](image3)

or into 8 equal parts by grouping in threes:

![Diagram of notes](image4)

It can also be split into 6, 4 or 2, but there are no other ways to split up 24 notes into equal parts (because $24 = 2^3 \times 3$). What Slonimsky does next is take just the first note of each grouping and throw away the rest, so that the last grouping into 8 equal parts would become this (compare it with the grouping above). You may recognise it as the diminished seventh arpeggio played twice (i.e. up two octaves), and a little reflection on how it was arrived at will show that this is not very surprising:

![Diagram of notes](image5)

In general, Slonimsky’s first recipe works as follows. First take a certain number of octaves. Then divide them into equal parts: the first note of each part goes into the ‘base’. That’s all there is to it. In our example we took two octaves and divided it into eight equal parts; Slonimsky is interested in *all* the possible ways to do this. The resulting base gives us the ‘input’ or raw material for the second recipe.
1.1.2 Stage Two: Adding the Ornament

OK, so the first recipe has provided a base – a set of notes that we now want to ornament in order to make our musical material more interesting. This works a bit like ornamentation does in many other places, by creating a simple pattern and then repeating it. It probably won’t surprise you to know that the repetitions will be governed by the notes in the base we’ve just cooked up.

The pattern we’ll use will be something fairly simple that begins with each ‘base note’ in turn, and stays exactly the same as we move it around. So we don’t change the pattern to fit, say, a diatonic major scale. You can do that if you like, but that’s not the Slonimsky way. The pattern always stays the same, every time.

Let’s work with a concrete example. Here’s a way to play the base we just created on the guitar, starting at C:

```
8-11
B
```

and here’s a simple pattern of notes we could use for ornamentation:

```
8-10-11-10
B
```

What we want to do is take that little pattern and use it as a stencil, making the same pattern appear in the place of each base note. You may find the following fingering a bit awkward, but try it out slowly and match it up with the base:

```
8-10-11-10-11-9-12-13-11
B
```

You probably have to play this on the guitar to get the idea. First play the base, then play the ornamented version and notice how the same four-note pattern keeps repeating, each time starting on a different note from the base. This, and only this, is what the first twelve chapters of Slonimsky’s Thesaurus are about. That’s it: make a base, which Slonimsky prefers to be constructed using his ‘first recipe’ (as I’ve called it), then ornament the base in the way just described. This is Slonimsky’s Big Idea.
1.2 The Basic Ornaments

The guitar has a great advantage over many instruments for applying Slonimsky’s ideas, which is that the patterns for ornamentation mostly remain the same and simply move from one place to another on the fingerboard as you go up or down the whole pattern. This may sometimes be physically awkward but at least it’s very easy to visualise what to do next. In order to approach the material in this book logically, and in order to provide some technical practice, it’s worthwhile isolating these ornaments and examining them systematically.²

We’ll consider an ornament to be composed of two parts: a layout and a sequence. The layout gives you a small pattern of notes on the fingerboard, while the sequence tells you which order to play them in. The base tell you how to move the pattern as you repeat it.

1.2.1 Layouts

We will only consider layouts that can be played on a single string within a span of six frets. Those that lie within four frets will be comfortable for all players anywhere on the fingerboard; five- and six-fret stretches are generally difficult except above the twelfth fret unless two-handed tapping is used. Tapping does allow for significantly larger layouts than these of course, but they would bulk out this book very significantly without adding much in terms of usability. The fingerings in this book, however, will avoid large stretches by using string-crossing in order to keep the main patterns within a single, practical position. Players who enjoy stretching or working out tapping sequences will be able to adapt the fingerings given to suit their tastes and may want to explore layouts that span larger intervals.

Since we have seven frets (six plus the one we’re starting on), we in theory have the following numbers of layouts:

<table>
<thead>
<tr>
<th>Notes</th>
<th>Layouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

²Note that Slonimsky does this completely differently and arrives at somewhat different results.
giving 64 possibilities in all. Not all possibilities are equal, however: the 5-, 6- and 7-note layouts in particular are rather dull, containing as they do long runs of chromatic notes. For this reason we’ll exclude them from our consideration, leaving 42 possibilities in all. It’s worth noting that Slonimsky doesn’t include such patterns in the *Thesaurus* either.

So what are the remaining 42 layouts? Here’s a complete list. Each horizontal line can be thought of as a string and the short vertical lines as frets (an example follows that should make this clearer).

As an example in understanding these layouts, we can use this layout:

```
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
```

As an example in understanding these layouts, we can use this layout:

```
|   |   |   |   |   |
```

to play any of the following patterns:

```
5 7 8 5 8 7 8 5 10 11 10 8
```

Play these on the guitar if necessary to see how in each case the same relationship between the notes is present, even though the pitches and the order in which they’re used is different. This is the key to the idea of a layout — it’s a pattern of notes that can be moved around and played in any order you like. This is the basic ingredient of our ornamentation.
1.2. THE BASIC ORNAMENTS

In some cases it may be useful to make a distinction between layouts that span at most four frets and those that require an out-of-position stretch if they’re to be played on a single string. The former will always be treated first and called standard layouts; the others will be called stretch layouts. Here are the two classes of layouts so you can see the difference:

**Standard Layouts**

```
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
```

**Stretch Layouts**

```
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
```

1.2.2 Sequences

Like Slonimsky, we insist that every ornament must start with the base note it’s built on, and that this must be the lowest-pitched note in the layout – that is, all valid sequences start with a ‘1’. This means we don’t have to worry about modal equivalences between different patterns (there won’t be any) but we can still arrive at all the patterns we would have been able to anyway. Unlike Slonimsky, we’ll allow some repetition of notes within an ornament, because that’s quite strongly characteristic of a number of guitar styles and can create interesting sounds. Obviously, though, there has to be a limit to how many repetitions we’ll allow, otherwise a sequence can go on forever.
We choose four notes as our limit in this book. This would be enough to reproduce all but a few of Slonimsky’s patterns and a huge number that he doesn’t include. For a given layout we’ll number the notes it contains sequentially. So if we take this layout:

![Diagram of notes: 5-7-8]

this pattern will be called 123:

![Diagram of notes: 5 7 8]

this will be called 312:

![Diagram of notes: 8 5 7]

and this will be 2313:

![Diagram of notes: 7 8 5 8]

We will also impose the rule that any sequence applied to a layout must use each of the layout’s notes at least once (this avoids manifestly silly cases such as a four-note layout with a three-note sequence). A simple exercise in combinations tells us that we have the following possible sequences for each type of layout:

<table>
<thead>
<tr>
<th>Notes</th>
<th>Sequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>12, 21, 121, 212, 1212, 2121</td>
</tr>
<tr>
<td>3</td>
<td>123, 132, 213, 231, 312, 312, 1213, 1231, 1232, 1321, 1323, 1312, 2123, 2131, 2132, 2312, 2313, 2321, 3121, 3123, 3132, 3212, 3213, 3231</td>
</tr>
<tr>
<td>4</td>
<td>1234, 1243, 1324, 1342, 1423, 1432, 2134, 2143, 2314, 2341, 2413, 2431, 3142, 3124, 3214, 3241, 3412, 3421, 4123, 4132, 4213, 4231, 4312, 4321</td>
</tr>
</tbody>
</table>

Combining sequences with layouts we arrive at the final counts for the numbers of possible ornaments:
These are certainly large numbers: for any given base we have a total of 877 possible ornaments to consider. In practice we find that it is somewhat fewer than this in many cases, since we will follow Slonimsky and disallow any pattern that contains consecutive doubling of the same pitch. We will not follow Slonimsky as far as excluding any sequence that includes the next note from the base anywhere within it, since these do have musical applications. In any case, in this book the aim is to present a selection of possibilities without trying to be exhaustive, safe in the knowledge that the reader who has understood the recipe can construct as many additional patterns as they require\textsuperscript{3}.

With practice this can be done improvisationally, too. Once you have the idea of playing a fixed ornament on a symmetrical base, and you know how to play the bases in question, it is quite easy to come up with ornaments on a chosen base \textit{ad lib}. This may be a worthwhile goal to pursue, depending on the type of music you play and the importance of improvisation within it; some players will prefer to develop this material in advance, allowing for greater complexity and, of course, speed.

\section{1.3 Application to Symmetrical Scales}

A recipe like this one is all well and good, but many students who’ve heard a lot of talk about the \textit{Thesaurus} wonder why such a weirdly mechanical idea might be worth studying and how its results might be applied.

Slonimsky himself was a great defender of musical modernism and his idea was not, therefore, originally intended for use by jazz, rock or pop musicians who still mostly work with harmonic structures composed of triad-based chords in conventional arrangements. Nor, though, is it especially applicable to serialism, which became the dominant language of the international modernist style. If Coltrane hadn’t found inspiration in it, the system may have remained an obscure historical curiosity, a road not travelled in the annals of the experimentation of the mid-twentieth century. There are plenty of others whose company it could have joined.

\footnote{Slonimsky’s original book does not contain all of the possibilities offered by his own system either, despite some claims others have made to the contrary.}
Surprisingly, although the Slonimsky recipe as I’ve described it is capable of producing an extremely large number of patterns they can be grouped into a rather small number of categories based on which chord tones they contain. This will be a key analytical tool used in this book, since even those who are working outside the tonal idiom may find it helpful in determining the sounds involved, and those working within it will find it indispensable.

As an example of what I mean, consider this fairly typical pattern:

If you look at the pitches used, you’ll find they are C, C♯, D♯, E, F♯, G, A, B♭, which is the Half-Whole Tone Diminished Scale in the key of C. You can therefore use this pattern anywhere where you might use this scale; you’re playing the scale, but perhaps using a pattern you wouldn’t have thought of before. It should be obvious that all patterns that contain all and only the notes of this scale share something very important in common. Because of this, this book’s chapters organise the patterns by note-content, not by the base as Slonimsky does.

When studying the patterns in this book it may help to concentrate on one or two of these at first, since they share a common sound. If, on the other hand, you’re interested in hearing how much variety the recipe is capable of producing, try picking one or two patterns from each chapter instead.

Rather than starting with a twelve-tone conception as Slonimsky did, I’m guessing you’ll be used to thinking in terms of scales and arpeggios when playing, and that starting there will be rather more helpful. As a consequence, the first part of this book is devoted entirely to patterns that result in a set of notes that form a scale (well-known or not) other than the chromatic scale. In the second part we look at some patterns that produce all twelve tones.

1.3.1 Notes on the Way Things are Laid Out

The fingerings for the melodic patterns are generally given starting from C at the eighth fret and ascending only. They remain strictly in position except for a few high notes that require position shifts. In these cases you will never see a note on the frets below the eighth fret, even when this can make the fingering decidedly easier. There are a few reasons for this, but the main one is consistency; since you will soon come to know what to expect, you can experiment with any fingering in order to vary it to your tastes. The fingerings as given are certainly not intended to be the...
most efficient or convenient; they are simply easy to understand on a first reading.

In order to make the larger patterns playable on the guitar octave transpositions have frequently been used; Slonimsky never does this. Using alternative fingerings you will be able to construct runs that cover more octaves than those included in this book, but the way the runs change direction when a transposition takes place seems to me to be attractive as well as sometimes yielding some interesting fingerings. As with everything else, you are at liberty to experiment with different octave placements of notes, and if you play an instrument other than guitar you may even find it technically advantageous to do so.

In order to save space I have given all patterns in the ascending form only. To play them descending simply play the notes in exactly reverse order. Although a little awkward at first it’s very easy to develop facility at reading them backwards.

Each chapter in the first part is, as I explained above, devoted to patterns that contain all and only the notes of some known scale or arpeggio; the second part contains patterns covering the total chromatic and the third introduces the idea of non-symmetrical bases, which are explained there. Within each chapter in the first part I have grouped the patterns by the interval by which the base moved before octave transpositions become necessary. Each pattern is headed with a visual representation of the layout and sequence to aid interpretation.

1.4 Summary

Slonimsky’s Big Idea, which occupies the twelve chapters of the Thesaurus that concern us, is to build a base using a symmetrical (that is, equal) division of several octaves and then decorate that base with an ornament. We have analysed an ornament into a layout and a sequence that, when combined, tell us how to decorate each note in the base. This will generate thousands of patterns for us to experiment with, and a selection of those patterns are presented in the next chapters.
Part I
Symmetrical Scales
2

Augmented Arpeggio

2.1 Augmented Fifth

\[
\begin{array}{c}
\text{\[1, 2, 1\]} \\
\end{array}
\]

2.2 Major Third

\[
\begin{array}{c}
\text{\[1, 2, 1\]} \\
\end{array}
\]
3

Diminished Seventh Arpeggio

3.1 Major Sixth

\[
\text{[1, 2, 1]}
\]

\[
\begin{array}{c}
\text{F} \\
\text{B} \\
\text{8} \\
\text{11} \\
\text{10} \\
\text{8} \\
\text{9} \\
\text{12} \\
\text{12} \\
\end{array}
\]

\[
\text{[1, 2, 1]}
\]

\[
\begin{array}{c}
\text{F} \\
\text{B} \\
\text{8} \\
\text{11} \\
\text{10} \\
\text{8} \\
\text{11} \\
\text{8} \\
\text{12} \\
\text{12} \\
\end{array}
\]
CHAPTER 3. DIMINISHED SEVENTH ARPEGGIO

\[1, 3, 2\]
3.2 Minor Third

\[ \text{[1, 2, 1]} \]

\[ \text{[1, 2, 3, 2]} \]

\[ \text{[1, 3, 2, 3]} \]
### 3.3 Diminished Fifth

#### [1, 2, 1]

#### [1, 3, 2]

#### [1, 3, 2, 1]

#### [1, 2, 3, 1]
CHAPTER 3. DIMINISHED SEVENTH ARPEGGIO

\[ [1, 2, 3, 2] \]
4

Dominant 7 ♭5
arpeggio

4.1 Diminished Fifth

\[ \text{[1, 2, 1]} \]

\[ \text{[1, 3, 2]} \]
CHAPTER 4. DOMINANT 7♭5 ARPEGGIO
5
Whole Tone Scale

5.1 Whole Tone

\[ \text{[1, 2, 1]} \]
CHAPTER 5. WHOLE TONE SCALE

[\text{\textbf{1, 2, 1}}]

\begin{figure}
\centering
\includegraphics[width=\textwidth]{whole_tone_scale_diagram}
\end{figure}
5.1. WHOLE TONE

\[ \text{[1, 3, 2]} \]

\[ \text{[1, 2, 3]} \]
CHAPTER 5. WHOLE TONE SCALE

\[ [1, 3, 2, 1] \]

\[ [1, 2, 3, 1] \]
5.1. WHOLE TONE

\[ \text{\textcircled{1, 2, 3, 2}} \]

\[ \text{\textcircled{1, 2, 3, 3}} \]
CHAPTER 5. WHOLE TONE SCALE

[1, 2, 3]

[1, 3, 2, 1]
5.1. WHOLE TONE

\[ [1, 2, 3, 1] \]

\[ [1, 3, 2, 3] \]
5.1. WHOLE TONE

[1, 2, 3, 1]

[1, 3, 2, 3]
5.2 Augmented Fifth

\begin{align*}
\text{[1, 2, 1]} & & \text{[1, 3, 2]} & & \text{[1, 2, 3]} \\
\end{align*}
CHAPTER 5. WHOLE TONE SCALE

\[ [1, 3, 2] \]

\[ [1, 2, 3] \]

\[ [1, 3, 2, 1] \]

\[ [1, 2, 3, 1] \]
5.2. AUGMENTED FIFTH

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 2]

[1, 2, 3]
CHAPTER 5. WHOLE TONE SCALE

[1, 3, 2, 1]

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]
5.2. AUGMENTED FIFTH

\[ \begin{array}{c}
\text{\[1, 3, 4, 2\]} \\
\end{array} \]
5.3 Major Third
5.3. MAJOR THIRD

[1, 2, 3]
CHAPTER 5. WHOLE TONE SCALE

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]

[1, 2, 3, 1]
5.3. MAJOR THIRD
CHAPTER 5. WHOLE TONE SCALE

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 4, 2]

[1, 4, 3, 2]
5.4 Minor Seventh
CHAPTER 5. WHOLE TONE SCALE

[1, 2, 1]

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]
5.4. MINOR SEVENTH

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 2]
CHAPTER 5. WHOLE TONE SCALE

\[ \text{[1, 2, 3]} \]

\[ \text{[1, 3, 2, 1]} \]

\[ \text{[1, 2, 3, 1]} \]

\[ \text{[1, 2, 3, 2]} \]
### 5.4. MINOR SEVENTH

#### [1, 3, 2, 3]

\[
\begin{array}{cccc}
| & | & | & | \\
\begin{array}{cccc}
{\text{C}} & {\text{E}} & {\text{G}} & {\text{B}} \\
\text{G} & \# & \# & \# \\
\text{B} & \# & \# & \# \\
\text{E} & \# & \# & \# \\
\text{C} & \# & \# & \# \\
\end{array}
\end{array}
\]

| & & 10 & 10 |
|---|---|---|---|
| 9 & 13 & 13 & 11 |
| 9 & 11 & 11 & 9 |

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<td>8 &amp; 10</td>
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#### [1, 3, 2]

\[
\begin{array}{cccc}
| & | & | | \\
\begin{array}{cccc}
{\text{C}} & {\text{E}} & {\text{G}} & {\text{B}} \\
\text{G} & \# & \# & \# \\
\text{B} & \# & \# & \# \\
\text{E} & \# & \# & \# \\
\text{C} & \# & \# & \# \\
\end{array}
\end{array}
\]

| & & 11 & 11 |
|---|---|---|---|
| 9 & 11 & 9 & 11 |
| 9 & 11 & 9 & 11 |
| 8 & 12 & 10 |

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</table>

#### [1, 2, 3]

\[
\begin{array}{cccc}
| & | | | \\
\begin{array}{cccc}
{\text{C}} & {\text{E}} & {\text{G}} & {\text{B}} \\
\text{G} & \# & \# & \# \\
\text{B} & \# & \# & \# \\
\text{E} & \# & \# & \# \\
\text{C} & \# & \# & \# \\
\end{array}
\end{array}
\]

| & & 9 & 11 |
|---|---|---|---|
| 11 & 9 & 11 & 9 |
| 9 & 11 & 9 & 11 |
| 8 & 10 & 12 |

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<td>8 &amp; 10</td>
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</tbody>
</table>

#### [1, 3, 2, 1]

\[
\begin{array}{cccc}
| & | | | \\
\begin{array}{cccc}
{\text{C}} & {\text{E}} & {\text{G}} & {\text{B}} \\
\text{G} & \# & \# & \# \\
\text{B} & \# & \# & \# \\
\text{E} & \# & \# & \# \\
\text{C} & \# & \# & \# \\
\end{array}
\end{array}
\]

| & & 9 & 13 |
|---|---|---|---|
| 11 & 9 & 11 & 9 |
| 11 & 9 & 11 & 9 |
| 8 & 12 & 10 & 8 |

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<tbody>
<tr>
<td>8 &amp; 12</td>
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</tr>
</thead>
<tbody>
<tr>
<td>8 &amp; 12</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 5. WHOLE TONE SCALE

\[ [1, 2, 3, 1] \]

\[ [1, 2, 3, 2] \]

\[ [1, 3, 2, 3] \]

\[ [1, 3, 4, 2] \]
5.4. MINOR SEVENTH

[1, 4, 3, 2]

[1, 4, 2, 3]

[1, 2, 4, 3]

[1, 3, 2, 4]
5.5 Diminished Fifth
6

Half-Whole Diminished Scale Group

6.1 Major Sixth

\[ [1, 2, 1] \]

\[ [1, 2, 1] \]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 2, 1]

[1, 2, 1]

[1, 3, 2]

[1, 2, 3]
6.1. MAJOR SIXTH

[1, 3, 2, 1]

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[ \begin{array}{c}
\text{[1, 2, 3]} \\
\begin{array}{c}
\text{G} \\
\text{A} \\
\text{B} \\
\end{array}
\end{array} \]

\[ \begin{array}{c}
\text{[1, 3, 2]} \\
\begin{array}{c}
\text{G} \\
\text{A} \\
\text{B} \\
\end{array}
\end{array} \]

\[ \begin{array}{c}
\text{[1, 3, 2]} \\
\begin{array}{c}
\text{G} \\
\text{A} \\
\text{B} \\
\end{array}
\end{array} \]

\[ \begin{array}{c}
\text{[1, 2, 3]} \\
\begin{array}{c}
\text{G} \\
\text{A} \\
\text{B} \\
\end{array}
\end{array} \]

\[ \begin{array}{c}
\text{[1, 3, 1]} \\
\begin{array}{c}
\text{G} \\
\text{A} \\
\text{B} \\
\end{array}
\end{array} \]

\[ \begin{array}{c}
\text{[1, 2, 3]} \\
\begin{array}{c}
\text{G} \\
\text{A} \\
\text{B} \\
\end{array}
\end{array} \]

\[ \begin{array}{c}
\text{[1, 3, 1]} \\
\begin{array}{c}
\text{G} \\
\text{A} \\
\text{B} \\
\end{array}
\end{array} \]
6.1. MAJOR SIXTH

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 2]

[1, 2, 3]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 3, 2, 1]

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]
6.1. MAJOR SIXTH

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]

[1, 2, 3, 1]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\begin{align*}
&\text{[1, 2, 3, 2]} \\
&\text{[1, 3, 2, 3]} \\
&\text{[1, 3, 2]} \\
&\text{[1, 2, 3]} \\
\end{align*}
6.1. MAJOR SIXTH

\[ [1, 3, 2, 1] \]

\[ [1, 2, 3, 1] \]

\[ [1, 2, 3, 2] \]

\[ [1, 3, 2, 3] \]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]

[1, 2, 3, 1]
6.1. MAJOR SIXTH

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 2]

[1, 2, 3]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[ [1,3,2,1] \]

\[ [1,2,3,1] \]

\[ [1,2,3,2] \]

\[ [1,3,2,3] \]
6.1. MAJOR SIXTH

\[ \begin{array}{c}
\text{[1, 3, 2]} \\
\end{array} \]

\[ \begin{array}{c}
\text{[1, 2, 3]} \\
\end{array} \]

\[ \begin{array}{c}
\text{[1, 3, 2, 1]} \\
\end{array} \]

\[ \begin{array}{c}
\text{[1, 2, 3, 1]} \\
\end{array} \]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 2]

[1, 2, 3]
6.1. MAJOR SIXTH

[1, 3, 2, 1]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]

[1, 2, 3, 1]
6.1. MAJOR SIXTH
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 4, 2, 3]

[1, 2, 4, 3]

[1, 3, 2, 4]

[1, 2, 3, 4]
6.1. MAJOR SIXTH

[1, 3, 4, 2]

[1, 4, 3, 2]

[1, 4, 2, 3]

[1, 2, 4, 3]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[ [1, 3, 2, 4] \]

\[ [1, 2, 3, 4] \]

\[ [1, 3, 4, 2] \]

\[ [1, 4, 3, 2] \]
6.1. MAJOR SIXTH

[1, 4, 2, 3]

[1, 2, 4, 3]

[1, 3, 2, 4]

[1, 2, 3, 4]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 3, 4, 2]

[1, 4, 3, 2]

[1, 4, 2, 3]

[1, 2, 4, 3]
6.1. MAJOR SIXTH

[1, 3, 2, 4]

[1, 2, 3, 4]

[1, 3, 4, 2]

[1, 4, 3, 2]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[ [1, 4, 2, 3] \]

\[ [1, 2, 4, 3] \]

\[ [1, 3, 2, 4] \]

\[ [1, 2, 3, 4] \]
6.1. MAJOR SIXTH

[1, 3, 4, 2]

[1, 4, 3, 2]

[1, 4, 2, 3]

[1, 2, 4, 3]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[
\begin{bmatrix}
[1, 3, 2, 4]
\end{bmatrix}
\]

\[
\begin{bmatrix}
[1, 2, 3, 4]
\end{bmatrix}
\]

\[
\begin{bmatrix}
[1, 3, 4, 2]
\end{bmatrix}
\]

\[
\begin{bmatrix}
[1, 4, 3, 2]
\end{bmatrix}
\]
6.1. MAJOR SIXTH

[1, 4, 2, 3]

[1, 2, 4, 3]

[1, 3, 2, 4]

[1, 2, 3, 4]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 3, 4, 2]

[1, 4, 3, 2]

[1, 4, 2, 3]

[1, 2, 4, 3]
6.2 Minor Third
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[ 1, 2, 1 \]

\[ 1, 2, 1 \]

\[ 1, 3, 2 \]

\[ 1, 2, 3 \]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]

[1, 2, 3, 1]
6.2. MINOR THIRD

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 2, 3]

[1, 3, 2, 1]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 2, 3, 1]

[1, 3, 2, 3]

[1, 2, 3]

[1, 3, 2, 1]
6.2. MINOR THIRD

\[ [1, 2, 3, 1] \]

\[ [1, 3, 2, 3] \]

\[ [1, 3, 2] \]

\[ [1, 2, 3] \]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[1, 2, 3, 2\]

\[1, 3, 2, 3\]

\[1, 3, 2\]

\[1, 3, 2, 1\]
6.2. MINOR THIRD

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2]

[1, 2, 3]
6.2. MINOR THIRD

[1, 3, 2]

[1, 3, 1]

[1, 2, 3, 1]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[\text{[1, 2, 3, 2]}\]

\[\text{[1, 3, 2, 3]}\]

\[\text{[1, 3, 2]}\]

\[\text{[1, 3, 2, 1]}\]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP
6.2. MINOR THIRD

[1, 3, 2, 4]

[1, 2, 3, 4]

[1, 3, 4, 2]

[1, 4, 3, 2]
6.2. MINOR THIRD

[1, 3, 4, 2]

[1, 4, 3, 2]

[1, 3, 2, 4]

[1, 2, 3, 4]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[1, 3, 4, 2\]

\[1, 4, 3, 2\]

\[1, 3, 2, 4\]

\[1, 2, 3, 4\]
6.2. MINOR THIRD

[1, 3, 4, 2]

[1, 4, 3, 2]

[1, 4, 2, 3]

[1, 2, 4, 3]
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 3, 2, 4]

[1, 2, 3, 4]

[1, 3, 4, 2]

[1, 4, 3, 2]
6.2. MINOR THIRD

[1, 3, 2, 4]

[1, 2, 3, 4]

[1, 3, 4, 2]

[1, 4, 3, 2]
6.3 Diminished Fifth
CHAPTER 6. HALF-WHOLE DIMINISHED SCALE GROUP

\[ \text{[1, 3, 4, 2]} \]

\[ \text{[1, 4, 3, 2]} \]

\[ \text{[1, 4, 2, 3]} \]

\[ \text{[1, 2, 4, 3]} \]
6.3. **DIMINISHED FIFTH**

\[ [1, 3, 2, 4] \]

\[ [1, 2, 3, 4] \]
7.1 Major Sixth
CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

\[ \text{[1, 2, 1]} \]

\[ \text{[1, 3, 2]} \]

\[ \text{[1, 2, 3]} \]

\[ \text{[1, 3, 2, 1]} \]
7.1. MAJOR SIXTH

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 2]
CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

\[ \text{\{1, 2, 3\}} \]

\[ \text{\{1, 3, 2, 1\}} \]

\[ \text{\{1, 2, 3, 1\}} \]

\[ \text{\{1, 2, 3, 2\}} \]
7.1. MAJOR SIXTH

[1, 3, 2, 3]

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]
CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 2]
CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 3, 2, 3]

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]
7.1. MAJOR SIXTH

\[ [1, 2, 3, 1] \]

\[ [1, 2, 3, 2] \]

\[ [1, 3, 2, 3] \]

\[ [1, 3, 4, 2] \]
CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 4, 3, 2]

[1, 4, 2, 3]

[1, 2, 4, 3]

[1, 3, 2, 4]
7.1. MAJOR SIXTH

[1, 2, 3, 4]

[1, 3, 4, 2]

[1, 4, 3, 2]

[1, 4, 2, 3]
7.2 Minor Third
7.2. MINOR THIRD

\[ \text{[1, 2, 1]} \]

\[ \text{[1, 2, 1]} \]

\[ \text{[1, 3, 2]} \]

\[ \text{[1, 2, 3]} \]
### CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

#### [1, 3, 2, 1]

![Music notation and rhythmic notation](image)

### [1, 2, 3, 1]

![Music notation and rhythmic notation](image)

### [1, 2, 3, 2]

![Music notation and rhythmic notation](image)

### [1, 3, 2, 3]

![Music notation and rhythmic notation](image)
7.2. MINOR THIRD

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]

[1, 2, 3, 1]
CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 2, 3]

[1, 3, 2, 1]
7.2. MINOR THIRD

[1, 2, 3, 1]

[1, 3, 2, 3]

[1, 3, 2]

[1, 2, 3]
CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

\[ [1, 3, 2, 1] \]

\[ [1, 2, 3, 1] \]

\[ [1, 2, 3, 2] \]

\[ [1, 3, 2, 3] \]
7.2. MINOR THIRD
CHAPTER 7. HALF-WHOLE DIMINISHED SCALE GROUP

\[ \text{[1, 4, 2, 3]} \]

\[ \text{[1, 2, 4, 3]} \]

\[ \text{[1, 3, 2, 4]} \]

\[ \text{[1, 2, 3, 4]} \]
The patterns in this chapter suggest the Half-Whole scale but do not contain all of its notes. Most players will find they can be used in the same contexts as those containing the entire scale, although they do give somewhat different flavours.

8.1 Diminished Fifth

\[1, 2, 1\]
9
\textbf{1}^{\text{dom}} + b6^{\text{maj}} \text{ Scale}

\textbf{Group}

\section*{9.1 Augmented Fifth}

\begin{align*}
\text{\textbf{\textsf{\textbullet \textbullet \textbullet \textbullet \textbullet \textbullet [1, 2, 1]}}}
\end{align*}

\begin{align*}
\text{\textbf{\textsf{\textbullet \textbullet \textbullet \textbullet \textbullet \textbullet [1, 2, 1]}}}
\end{align*}

139
9.2 Major Third

[1, 2, 1]
10

$4_{\text{min}} + 7_{\text{min}}$ Scale Group

10.1 Diminished Fifth

\[ \begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\mid \mid \mid \mid \mid \mid \mid \mid
\end{array} \]

\[ \text{[1, 3, 2]} \]

\[ \begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\mid \mid \mid \mid \mid \mid \mid \mid
\end{array} \]

\[ \text{[1, 2, 3]} \]
CHAPTER 10. $4^{\text{min}} + 7^{\text{min}}$ SCALE GROUP

\[ [1, 3, 2, 1] \]

\[ [1, 2, 3, 1] \]

\[ [1, 2, 3, 2] \]

\[ [1, 3, 2, 3] \]
11

$2^{\text{maj}} + \#5^{\text{maj}}$ Scale

Group

11.1 Diminished Fifth

\begin{align*}
&\begin{array}{c}
\text{[1, 3, 2]} \\
\begin{array}{ccccccc}
\text{F} & 8 & 9 & 10 & 12 & 10-8 & 11-12-10 \\
\text{B} & 8 & 9 & 12 & 10 & 8-11 \\
\end{array}
\end{array}
\end{align*}

\begin{align*}
&\begin{array}{c}
\text{[1, 2, 3]} \\
\begin{array}{ccccccc}
\text{F} & 8 & 9 & 10 & 12 & 10-8 & 10-12 \\
\text{B} & 8 & 9 & 12 & 10 & 8-10-11 \\
\end{array}
\end{array}
\end{align*}

145
CHAPTER 11. $2^{\text{MAJ}} + 5^{\text{MAJ}}$ SCALE GROUP

[1, 3, 2, 1]

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]
11.1. DIMINISHED FIFTH

[\[1, 3, 2\]]

[\[1, 2, 3\]]

[\[1, 3, 2, 1\]]

[\[1, 2, 3, 1\]]
CHAPTER 11. $2^{\text{MAJ}} + 5^{\text{MAJ}}$ SCALE GROUP

$[1, 2, 3, 2]$

$[1, 3, 2, 3]$

$[1, 3, 4, 2]$

$[1, 4, 3, 2]$
11.1. DIMINISHED FIFTH

[1, 4, 2, 3]

\[ \text{Noteheads: } \text{noteheads.s2} \]

\[ \text{Accidentals: } \text{accidentals.sharp} \]

\[ \text{Clefs: } \text{clefs.G} \]

[1, 2, 4, 3]

\[ \text{Noteheads: } \text{noteheads.s2} \]

\[ \text{Accidentals: } \text{accidentals.sharp} \]

\[ \text{Clefs: } \text{clefs.G} \]

[1, 3, 4, 2]

\[ \text{Noteheads: } \text{noteheads.s2} \]

\[ \text{Accidentals: } \text{accidentals.sharp} \]

\[ \text{Clefs: } \text{clefs.G} \]

[1, 4, 3, 2]

\[ \text{Noteheads: } \text{noteheads.s2} \]

\[ \text{Accidentals: } \text{accidentals.sharp} \]

\[ \text{Clefs: } \text{clefs.G} \]
CHAPTER 11. $2^{\text{MAJ}} + \#^5\text{MAJ SCALE GROUP}$

\[ [1, 4, 2, 3] \]

\[ [1, 2, 4, 3] \]
12

Double Chromatic Scale Group

12.1 Diminished Fifth

\[
\text{[1, 3, 4, 2]}
\]

\[
\text{[1, 4, 3, 2]}
\]
CHAPTER 12. DOUBLE CHROMATIC SCALE GROUP

[1, 4, 2, 3]

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[1, 2, 4, 3]
13.1 Augmented Fifth

\[ \{1, 3, 2\} \]

\[ \{1, 2, 3\} \]
CHAPTER 13. TRIPLE CHROMATIC SCALE GROUP

[1, 3, 2, 1]

[1, 3, 2, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]
13.1. AUGMENTED FIFTH

\[\text{[1, 3, 2]}\]

\[
\begin{array}{c}
\text{\G \B} \\
\text{F} & \text{9-11} & \text{A-9-12} \\
\text{B} & \text{8-11} & \text{D-9-12} \\
\end{array}
\]

\[\text{[1, 2, 3]}\]

\[
\begin{array}{c}
\text{\G \B} \\
\text{F} & \text{9-12-11} \\
\text{B} & \text{8-11} & \text{D-9-12} \\
\end{array}
\]

\[\text{[1, 3, 2, 1]}\]

\[
\begin{array}{c}
\text{\G \B} \\
\text{F} & \text{9-11-12-9} \\
\text{B} & \text{8-11-8} & \text{D-12-9} \\
\end{array}
\]

\[\text{[1, 2, 3, 1]}\]

\[
\begin{array}{c}
\text{\G \B} \\
\text{F} & \text{9-12-11-9} \\
\text{B} & \text{8-11} & \text{D-9-12} \\
\end{array}
\]
CHAPTER 13. TRIPLE CHROMATIC SCALE GROUP

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 2]

[1, 2, 3]
13.1. AUGMENTED FIFTH

[1, 3, 2, 1]

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]
CHAPTER 13. TRIPLE CHROMATIC SCALE GROUP

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]

[1, 2, 3, 1]
13.1. AUGMENTED FIFTH

[1, 2, 3, 2]

[1, 3, 2, 3]

[1, 3, 4, 2]

[1, 4, 3, 2]
CHAPTER 13. TRIPLE CHROMATIC SCALE GROUP

\[
[1, 4, 2, 3]
\]

\[
[1, 2, 4, 3]
\]

\[
[1, 3, 2, 4]
\]

\[
[1, 2, 3, 4]
\]
13.1. AUGMENTED FIFTH

[1, 3, 4, 2]

[1, 4, 3, 2]

[1, 4, 2, 3]

[1, 2, 4, 3]
CHAPTER 13. TRIPLE CHROMATIC SCALE GROUP

13.2 Major Third

[1, 3, 2]

[1, 2, 3]
CHAPTER 13. TRIPLE CHROMATIC SCALE GROUP

[1, 3, 2]

[1, 2, 3]

[1, 3, 2, 1]

[1, 2, 3, 1]
13.2. MAJOR THIRD

[1, 2, 3, 2]

\[ \begin{array}{cccc}
1 & 2 & 3 & 2 \\
8 & 11 & 12 & 9-12-9 \\
10 & 11-8-9-12 & 12 & 9-12-10 \\
\end{array} \]

[1, 3, 2, 3]

\[ \begin{array}{cccc}
1 & 2 & 3 & 2 \\
8 & 11 & 12 & 9-12-9 \\
10 & 11-8-9-12 & 12 & 9-12-10 \\
\end{array} \]

[1, 3, 2]

\[ \begin{array}{cccc}
1 & 2 & 3 & 2 \\
8 & 11 & 12 & 9-12-9 \\
10 & 11-8-9-12 & 12 & 9-12-10 \\
\end{array} \]

[1, 2, 3]

\[ \begin{array}{cccc}
1 & 2 & 3 & 2 \\
8 & 11 & 12 & 9-12-9 \\
10 & 11-8-9-12 & 12 & 9-12-10 \\
\end{array} \]
CHAPTER 13. TRIPLE CHROMATIC SCALE GROUP

\[\begin{align*}
\text{[1, 2, 3, 2]} \\
\text{[1, 3, 2, 3]} \\
\text{[1, 4, 2, 3]} \\
\text{[1, 2, 4, 3]} \\
\end{align*}\]
13.2. MAJOR THIRD

\[
\begin{array}{c}
\text{\textit{[1, 3, 2, 4]}} \\
\end{array}
\]

\[
\begin{array}{c}
\text{\textit{[1, 2, 3, 4]}} \\
\end{array}
\]

\[
\begin{array}{c}
\text{\textit{[1, 3, 4, 2]}} \\
\end{array}
\]

\[
\begin{array}{c}
\text{\textit{[1, 4, 3, 2]}} \\
\end{array}
\]
CHAPTER 13. TRIPLE CHROMATIC SCALE GROUP
Part II
Total Chromatic
The chapters in this part of the book contain patterns that cover all twelve notes. These will inevitably have very different applications from those in the previous part, at least for the majority of players, which is why I have separated them from those in the previous part. Slonimsky created his pattern-book for a modernist, post-tonal context but many musicians today still play music with some element of tonality as a reference-point, at least. For them pitch content makes a significant difference.

The chapters in this part are organised in terms of the interval that separates the notes in the base. Because we often use octave displacement in this book it makes sense to group inversions of intervals together, so that we look at the base formed by a succession of minor thirds in the same chapter as the one formed by a succession of major sixths. Although these do produce some different patterns, when you work with them in practice the results are likely to be similar, especially if you treat them improvisationally rather than as mechanical patterns to be repeated verbatim.
15.1 Major Second

<table>
<thead>
<tr>
<th>8  8  10  10  12  12</th>
<th>9  9  11  11  11  8  8  8</th>
</tr>
</thead>
<tbody>
<tr>
<td>10  10  12  12  9  10  9</td>
<td>11  12  11  9  9  11  11 11</td>
</tr>
</tbody>
</table>

[3, 2, 1]
CHAPTER 15. MAJOR SECOND

[1, 2, 3]

[1, 3, 2, 1]
CHAPTER 15. MAJOR SECOND

[1, 3, 2, 3]

[1, 3, 2]
15.1. MAJOR SECOND
15.1. MAJOR SECOND

[1, 3, 2, 3]

\[ \begin{array}{c|c|c|c|c|c|c|c|c|c|c|c|c} \hline & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 \\ \hline \end{array} \]

\[ \begin{array}{c|c|c|c|c|c|c|c|c|c|c|c} \hline & & & & & & & & & & & & \\ \hline \end{array} \]

\[ \begin{array}{c|c|c|c|c|c|c|c|c|c|c|c} \hline & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 \\ \hline \end{array} \]

\[ \begin{array}{c|c|c|c|c|c|c|c|c|c|c|c} \hline & & & & & & & & & & & & \\ \hline \end{array} \]

\[ \begin{array}{c|c|c|c|c|c|c|c|c|c|c|c} \hline & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 \\ \hline \end{array} \]

[1, 2, 3]
CHAPTER 15. MAJOR SECOND

[1, 3, 2, 1]

[1, 2, 3, 1]
15.1. MAJOR SECOND

[1,3,2,3]

[1,3,4,2]
CHAPTER 15. MAJOR SECOND

[1, 4, 3, 2]

\[\text{[Diagram] } [1, 4, 3, 2]\]

\[\text{[Diagram] } [1, 4, 2, 3]\]
CHAPTER 15. MAJOR SECOND

\[1, 2, 3, 4\]

\[1, 3, 4, 2\]
15.1. MAJOR SECOND

1, 4, 3, 2

1, 4, 2, 3
CHAPTER 15. MAJOR SECOND

[1, 2, 4, 3]

[1, 3, 2, 4]
15.1. MAJOR SECOND

\[1, 2, 3, 4\]
15.2 Minor Seventh
15.2. MINOR SEVENTH
CHAPTER 15. MAJOR SECOND

[1, 4, 2, 3]

[1, 2, 4, 3]

[1, 3, 2, 4]

[1, 2, 3, 4]
15.2. MINOR SEVENTH

\[ [1, 3, 4, 2] \]

\[ [1, 4, 3, 2] \]

\[ [1, 4, 2, 3] \]

\[ [1, 2, 4, 3] \]
16 Minor Third

16.1 Minor Third

\[1, 3, 2\]

\[1, 2, 3\]

\[8-12-10-11\]

\[8-10-9-11\]

\[9-11-10-12\]

\[9-10-12\]

\[8-10-12\]

\[9-11-10-12\]

\[8-10-12-11\]

\[8-10-9-11\]

\[9-11-10-12\]

\[8-10-12\]

\[9-10-12\]

\[8-10-12\]
CHAPTER 16. MINOR THIRD

[1, 3, 2, 1]

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]
16.1. MINOR THIRD

\[1, 3, 4, 2\]

[Music notation image]

\[1, 4, 3, 2\]

[Music notation image]
CHAPTER 16. MINOR THIRD

\[ [1, 4, 2, 3] \]

\[ \text{Figure 16.1: Minor Thirds} \]

\[ \text{Figure 16.2: Minor Thirds} \]
16.1. MINOR THIRD

<table>
<thead>
<tr>
<th>[1, 3, 2, 4]</th>
</tr>
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<tr>
<th>[1, 2, 3, 4]</th>
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</table>

<table>
<thead>
<tr>
<th>[1, 3, 4, 2]</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>[1, 4, 3, 2]</th>
</tr>
</thead>
</table>
16.2 Major Sixth
CHAPTER 16. MINOR THIRD

[1, 3, 2, 1]

[1, 2, 3, 1]

[1, 2, 3, 2]

[1, 3, 2, 3]
CHAPTER 16. MINOR THIRD

\[ \text{[1, 3, 2, 4]} \]

\[ \text{[1, 2, 3, 4]} \]

\[ \text{[1, 3, 4, 2]} \]

\[ \text{[1, 4, 3, 2]} \]
16.2. MAJOR SIXTH

[1, 4, 2, 3]

[1, 2, 4, 3]

[1, 3, 2, 4]

[1, 2, 3, 4]
17 Major Third

17.1 Major Third

\[ [1, 3, 4, 2] \]

\[ [1, 4, 3, 2] \]

219
17.2 Minor Sixth

\[ \text{[1, 3, 4, 2]} \]

\[ \text{[1, 4, 3, 2]} \]

\[ \text{[1, 4, 2, 3]} \]

\[ \text{[1, 2, 4, 3]} \]
CHAPTER 17. MAJOR THIRD

\[ \text{[1, 3, 2, 4]} \]

\[
\begin{array}{c}
\text{\includegraphics[width=\textwidth]{music_diagram1}}
\end{array}
\]

\[ \text{[1, 2, 3, 4]} \]

\[
\begin{array}{c}
\text{\includegraphics[width=\textwidth]{music_diagram2}}
\end{array}
\]
18

Fourth

18.1 Fourth

\[ \text{[1, 2, 1]} \]
18.1. FOURTH

\[
\begin{array}{cccc}
& | & | & | \\
\text{[1, 2, 1]} & \quad & \quad & \\
\end{array}
\]

\[
\begin{array}{cccc}
\text{[1, 2, 1]} & \quad & \quad & \\
\end{array}
\]
CHAPTER 18. FOURTH

[1, 3, 2]

[1, 2, 3]
[1, 3, 2, 1]

\[ \text{[1, 3, 2, 1]} \]

\[ \text{[1, 2, 3, 1]} \]
CHAPTER 18. FOURTH

[1, 3, 2]

[1, 2, 3]
18.1. FOURTH

[1, 3, 2, 1]

[1, 2, 3, 1]
CHAPTER 18. FOURTH

[1, 2, 3, 2]
18.1. FOURTH

| 1, 3, 2 |

\[ \begin{array}{cccc}
1 & 2 & 3 & 4 \\
\end{array} \]

\[ \begin{array}{cccc}
1 & 2 & 3 & 4 \\
\end{array} \]

\[ \begin{array}{cccc}
1 & 2 & 3 & 4 \\
\end{array} \]

\[ \begin{array}{cccc}
1 & 2 & 3 & 4 \\
\end{array} \]
18.1. FOURTH

[1, 3, 2]

[1, 2, 3]
18.1. FOURTH

[1, 2, 3, 2]

\[ \text{\includegraphics[width=\textwidth]{18.1_fourth.png}} \]

[1, 3, 2, 3]

\[ \text{\includegraphics[width=\textwidth]{18.1_fourth.png}} \]
CHAPTER 18. FOURTH

\[1, 3, 4, 2\]

\[1, 4, 3, 2\]
18.1. FOURTH

\[ \text{[1, 3, 2, 4]} \]

\[ \text{[1, 2, 3, 4]} \]
CHAPTER 18. FOURTH

[1, 3, 4, 2]
18.1. FOURTH

[1, 3, 2, 4]

\[ \text{\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#\##
18.1. FOURTH
CHAPTER 18. FOURTH

[1, 3, 4, 2]

[1, 4, 3, 2]
18.1. FOURTH

[1, 4, 2, 3]

\[ \begin{array}{c}
\text{\( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \)} \\
\text{\( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \)} \\
\text{\( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \)} \\
\end{array} \]

\[ \begin{array}{c}
\text{\( \text{\( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \) \( \sharp \)} \\
\text{\( \text{\( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \) \( \flat \)} \\
\text{\( \text{\( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \) \( \dagger \)} \\
\end{array} \]

[1, 2, 4, 3]
CHAPTER 18. FOURTH

[1, 3, 2, 4]

[1, 2, 3, 4]
18.2 Fifth

\[ \boxed{\text{[1, 2, 1]}} \]
CHAPTER 18. FOURTH

[1, 2, 1]

\[ \begin{array}{cccc}
\text{Note 1} & \text{Note 2} & \text{Note 3} & \text{Note 4} \\
\text{Note 5} & \text{Note 6} & \text{Note 7} & \text{Note 8} \\
\end{array} \]

[1, 2, 1]

\[ \begin{array}{cccc}
\text{Note 1} & \text{Note 2} & \text{Note 3} & \text{Note 4} \\
\text{Note 5} & \text{Note 6} & \text{Note 7} & \text{Note 8} \\
\end{array} \]
CHAPTER 18. FOURTH
18.2. FIFTH

[1, 2, 3]

[1, 3, 2, 1]
CHAPTER 18. FOURTH

[1, 2, 3, 1]

[1, 2, 3, 2]
18.2. FIFTH

[1, 3, 2, 3]

\[\text{Diagram 1}\]

\[\text{Diagram 2}\]

\[\text{Diagram 3}\]
18.2. FIFTH

[1, 2, 3, 1]

[1, 2, 3, 2]
CHAPTER 18. FOURTH

[1, 2, 3, 1]

[1, 2, 3, 2]
18.2. FIFTH

\[
\begin{array}{c}
\begin{align*}
&| & | & | & \quad [1, 3, 2, 3] \\
&\text{\large \textsf{\textbf{FIFTH}}} & \\
&\text{\large \textsf{\textbf{18.2.}}} & \\
&\text{\large \textsf{\textbf{267}}} & \\

\end{align*}
\end{array}
\]

\[
\begin{array}{c}
\begin{align*}
&| & | & | & \quad [1, 3, 2, 3] \\
&\text{\large \textsf{\textbf{FIFTH}}} & \\
&\text{\large \textsf{\textbf{18.2.}}} & \\
&\text{\large \textsf{\textbf{267}}} & \\

\end{align*}
\end{array}
\]

\[
\begin{array}{c}
\begin{align*}
&| & | & | & \quad [1, 3, 2, 3] \\
&\text{\large \textsf{\textbf{FIFTH}}} & \\
&\text{\large \textsf{\textbf{18.2.}}} & \\
&\text{\large \textsf{\textbf{267}}} & \\

\end{align*}
\end{array}
\]

\[
\begin{array}{c}
\begin{align*}
&| & | & | & \quad [1, 3, 2, 3] \\
&\text{\large \textsf{\textbf{FIFTH}}} & \\
&\text{\large \textsf{\textbf{18.2.}}} & \\
&\text{\large \textsf{\textbf{267}}} & \\

\end{align*}
\end{array}
\]

\[
\begin{array}{c}
\begin{align*}
&| & | & | & \quad [1, 3, 2, 3] \\
&\text{\large \textsf{\textbf{FIFTH}}} & \\
&\text{\large \textsf{\textbf{18.2.}}} & \\
&\text{\large \textsf{\textbf{267}}} & \\

\end{align*}
\end{array}
\]

\[
\begin{array}{c}
\begin{align*}
&| & | & | & \quad [1, 3, 2, 3] \\
&\text{\large \textsf{\textbf{FIFTH}}} & \\
&\text{\large \textsf{\textbf{18.2.}}} & \\
&\text{\large \textsf{\textbf{267}}} & \\

\end{align*}
\end{array}
\]
18.2. FIFTH

[1, 2, 3, 1]

[1, 2, 3, 2]
18.2. FIFTH

[1, 2, 3]

[1, 3, 2, 1]
18.2. FIFTH

[1, 2, 3, 1]

[1, 2, 3, 2]
CHAPTER 18. FOURTH

[1, 3, 2, 3]

\[\text{MIDI notes and accidentals here}\]

[1, 3, 4, 2]

\[\text{MIDI notes and accidentals here}\]
CHAPTER 18. FOURTH

[1, 2, 4, 3]

[1, 3, 2, 4]
18.2. FIFTH

[1, 2, 4, 3]

[1, 3, 2, 4]
18.2. FIFTH
CHAPTER 18. FOURTH

\[\text{[1, 2, 4, 3]}\]

\[\text{[1, 3, 2, 4]}\]
18.2. FIFTH

[1, 2, 3, 4]

[1, 3, 4, 2]
CHAPTER 18. FOURTH

[1, 2, 3, 4]

\[ \text{Diagram showing musical notes and accidentals.} \]
Part III
Non-Symmetrical Bases
Up to this point we have covered a large number of patterns that use the modified version of Slonimsky’s recipe described in the opening chapter. It may have occurred to you that there is something a little arbitrary about that recipe, and that is the use of bases that ascend or descend by the same interval at every step. Why not use a base that does not do this? There is, in fact, no reason at all. The chapters in this part of the book collect a few representative ideas in this direction, although the possibilities are almost limitless.

If our idea is to be able to generate patterns like these on the fly it makes sense to choose bases that are already familiar: these patterns offer a way of ornament pitch materials you already know and use in a particular context. As a consequence I have picked the two most common triads, some seventh arpeggios and two very common scales for coverage here. Naturally, you can choose any base you like including very exotic or strange ones.

Following the approach in the previous part, chapters are organised by base rather than pitch-content. Not all of these patterns cover the total chromatic but most contain most of the twelve notes and so have a broadly chromatic sound, so that breaking them out by pitch content would be unhelpful. I have indicated the pitch content of each pattern in its heading.
20 Major Triad

Base

Patterns

\[ [1, 2, 3], 1, b2, 3, b5, 5, b6, b7, 7 \]
CHAPTER 20. MAJOR TRIAD

[1, 3, 4, 2] 1, b2, 2, 3, 4, b5, 5, 6, b7

[1, 4, 3, 2] 1, b2, 2, 3, 4, b5, 5, 6, b7

[1, 3, 2, 4] 1, b2, 2, 3, 4, b5, 5, 6, b7

[1, 2, 3, 4] 1, b2, 2, 3, 4, b5, 5, 6, b7
CHAPTER 20. MAJOR TRIAD

\[ \text{\textbf{Major Triads:}} \quad [1, 3, 2, 4] \quad 1, b2, 2, 3, b5, 5, b6, 6, b7, 7 \]

\[ \text{\textbf{Major Triads:}} \quad [1, 2, 3, 4] \quad 1, b2, 2, 3, b5, 5, b6, 6, b7, 7 \]

\[ \text{\textbf{Major Triads:}} \quad [1, 2, 3] \quad 1, b2, b3, 3, b5, 5, b7 \]

\[ \text{\textbf{Major Triads:}} \quad [1, 3, 2, 1] \quad 1, b2, b3, 3, b5, 5, b7 \]
\[\{1, 2, 3, 1\} 1, b2, b3, 3, b5, 5, b7\]

\[\{1, 3, 2, 3\} 1, b2, b3, 3, b5, 5, b7\]

\[\{1, 2, 1\} 1, 2, 3, b5, 5, 6\]

\[\{1, 3, 2\} 1, b2, 2, 3, b5, 5, 6, b7\]
CHAPTER 20. MAJOR TRIAD

\[ \text{[1, 2, 3]} \quad 1, b2, 2, 3, b5, 5, 6, b7 \]

\[ \text{[1, 3, 2, 1]} \quad 1, b2, 2, 3, b5, 5, 6, b7 \]

\[ \text{[1, 2, 3, 1]} \quad 1, b2, 2, 3, b5, 5, 6, b7 \]

\[ \text{[1, 2, 3, 2]} \quad 1, b2, 2, 3, b5, 5, 6, b7 \]
CHAPTER 20. MAJOR TRIAD

[1, 2, 3, 1] 1, 2, 3, b5, 5, b6, 6, 7

[1, 2, 3, 2] 1, 2, 3, b5, 5, b6, 6, 7

[1, 3, 2, 1] 1, b3, 3, 4, 5, 6, b7

[1, 2, 3, 1] 1, b3, 3, 4, 5, 6, b7
CHAPTER 20. MAJOR TRIAD

\[ [1, 3, 2] \quad 1, 2, 3, 4, b5, 5, 6 \]

\[ [1, 3, 2, 1] \quad 1, 2, 3, 4, b5, 5, 6 \]

\[ [1, 2, 3, 1] \quad 1, 2, 3, 4, b5, 5, 6 \]

\[ [1, 2, 3, 2] \quad 1, 2, 3, 4, b5, 5, 6 \]
Minor Triad

Base

\[ \text{Patterns} \]

\[ [1, 3, 4, 2] \quad 1, b2, 3, 4, b5, 6, 6, b7 \]
CHAPTER 21. MINOR TRIAD

[1, 2, 3, 4] 1, b2, b3, 4, b5, 5, b6, 6, b7

[1, 2, 3] 1, b2, b3, 3, b5, 5, 6, 7

[1, 3, 2, 1] 1, b2, b3, 3, b5, 5, 6, 7

[1, 2, 3, 1] 1, b2, b3, 3, b5, 5, 6, 7
CHAPTER 21. MINOR TRIAD

[1, 3, 2, 3] 1, b2, b3, b5, 5, 6, b7

[1, 3, 2] 1, b2, 2, b3, 4, b5, 5, 6

[1, 2, 3] 1, b2, 2, b3, 4, b5, 5, 6

[1, 3, 2, 1] 1, b2, 2, b3, 4, b5, 5, 6
CHAPTER 21. MINOR TRIAD

[1, 4, 3, 2] 1, b2, 2, b3, 4, b5, 5, b6, 6

[1, 3, 2, 4] 1, b2, 2, b3, 4, b5, 5, b6, 6

[1, 2, 3, 4] 1, b2, 2, b3, 4, b5, 5, b6, 6

[1, 3, 2] 1, 2, b3, 3, 4, 5, 6, 7
CHAPTER 21. MINOR TRIAD

[1, 3, 2, 4] 1, b2, b3, 3, 4, b5, 5, b6, 6, 7

[1, 2, 3, 4] 1, b2, b3, 3, 4, b5, 5, b6, 6, 7

[1, 2, 3, 1] 1, b3, 4, b5, 5, b6, b7

[1, 2, 3, 1] 1, b3, 4, b5, 5, b6, b7
[Key: C, 1, b3, b5, 5, b7]

[Key: G, 1, b2, b3, 4, b5, 5, b6, 6]

[Key: C, 1, b2, b3, 4, b5, 5, b6, 6]

[Key: G, 1, b2, b3, 4, b5, 5, b6, 6]
CHAPTER 21. MINOR TRIAD

[1, 3, 2, 3] 1, b2, b3, 4, b5, 5, b6, 6

[1, 2, 1] 1, b3, 3, 5, 7

[1, 3, 4, 2] 1, b2, 2, b3, 3, 4, b5, 5, 6, 7

[1, 4, 3, 2] 1, b2, 2, b3, 3, 4, b5, 5, 6, 7
CHAPTER 21. MINOR TRIAD

[1, 2, 3, 1] 1, 2, b3, 4, 5, b6, 6

[1, 2, 3, 2] 1, 2, b3, 4, 5, b6, 6

[1, 2, 1] 1, b2, b3, b5, 5, 6

[1, 2, 1] 1, b3, 4, 5, b6
22

Major Seventh

\[1, 3, 2\] 1, b2, 3, 4, b5, 5, 6, b7, 7

\[1, 2, 3\] 1, b2, 3, 4, b5, 5, 6, b7, 7
CHAPTER 22. MAJOR SEVENTH

[1, 3, 2, 1] 1, b2, 3, 4, b5, 5, 6, b7, 7

[1, 2, 3, 1] 1, b2, 3, 4, b5, 5, 6, b7, 7

[1, 2, 3, 2] 1, b2, 3, 4, b5, 5, 6, b7, 7

[1, 3, 2, 3] 1, b2, 3, 4, b5, 5, 6, b7, 7
CHAPTER 22. MAJOR SEVENTH

[1, 2, 3, 2] 1, b2, 2, 3, 4, 5, 6, 7, 8

[1, 3, 2, 3] 1, b2, 2, 3, 4, 5, 6, 7, 8

[1, 3, 4, 2] 1, b2, 2, 3, 4, 5, 6, 7, 8

[1, 4, 3, 2] 1, b2, 2, 3, 4, 5, 6, 7, 8

[1, 2, 3, 2] 1, b2, 2, 3, 4, 5, 6, 7, 8

[1, 3, 2, 3] 1, b2, 2, 3, 4, 5, 6, 7, 8

[1, 3, 4, 2] 1, b2, 2, 3, 4, 5, 6, 7, 8

[1, 4, 3, 2] 1, b2, 2, 3, 4, 5, 6, 7, 8
[1, 4, 2, 3] 1, b2, 2, 3, 4, 5, 5, 6, 6, 7

[1, 2, 4, 3] 1, b2, 2, 3, 4, 5, 5, 6, 6, 7

[1, 3, 2, 4] 1, b2, 2, 3, 4, 5, 5, 6, 6, 7

[1, 2, 3, 4] 1, b2, 2, 3, 4, 5, 5, 6, 6, 7
CHAPTER 22. MAJOR SEVENTH

[1, 2, 3, 1] 1, b2, b3, 3, 4, b5, 5, b6, b7, 7

[1, 3, 2, 3] 1, b2, b3, 3, 4, b5, 5, b6, b7, 7

[1, 2, 3] 1, 2, b3, 3, 4, 5, 6, b7, 7

[1, 3, 2, 1] 1, 2, b3, 3, 4, 5, 6, b7, 7
[1, 2, 3, 1] 1, 2, b3, 3, 4, 5, 6, b7, 7

[1, 3, 2, 3] 1, 2, b3, 3, 4, 5, 6, b7, 7

[1, 3, 2] Total Chromatic

[1, 4, 3, 2] Total Chromatic
CHAPTER 22. MAJOR SEVENTH

[1, 3, 2, 4] Total Chromatic

[1, 2, 3, 4] Total Chromatic

[1, 3, 2] 1, ♭2, 2, 3, 4, ♭5, 5, 6, 7

[1, 2, 3] 1, ♭2, 2, 3, 4, ♭5, 5, 6, 7
CHAPTER 22. MAJOR SEVENTH

\[ 1, 2, 3, 5, b7, 7 \]

\[ 1, 2, b3, 3, 5, b7, 7 \]

\[ 1, b2, 3, 4, b5, 5, 6, b7, 7 \]

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CHAPTER 22. MAJOR SEVENTH

\[ 1, 3, 2, 1 \] 1, b2, 2, b3, 3, 4, b5, 5, b7, 7

\[ 1, 2, 3, 1 \] 1, b2, 2, b3, 3, 4, b5, 5, b7, 7

\[ 1, 3, 2, 3 \] 1, b2, 2, b3, 3, 4, b5, 5, b7, 7

\[ 1, 3, 2 \] 1, b2, 2, b3, 3, b5, 5, b6, 6, 7
[1, 3, 2, 1] 1, b2, 2, b3, 3, b5, 5, b6, 6, 7

[1, 2, 3, 1] 1, b2, 2, b3, 3, b5, 5, b6, 6, 7

[1, 2, 3, 2] 1, b2, 2, b3, 3, b5, 5, b6, 6, 7
23
Minor Seventh

Base

Patterns

\[ [1, 3, 2, 4] \quad 1, \ b2, \ b3, \ 4, \ b5, \ 5, \ b6, \ 6, \ b7 \]
CHAPTER 23. MINOR SEVENTH

[1, 2, 3, 4] 1, b2, b3, 4, b5, 5, b6, 6, b7

[1, 2, 3] 1, b2, b3, 3, b5, 5, 6, 7

[1, 3, 2, 1] 1, b2, b3, 3, b5, 5, 6, 7

[1, 2, 3, 1] 1, b2, b3, 3, b5, 5, 6, 7
[1, 3, 2, 3] 1, b2, b3, 3, b5, 5, 6, 7

[1, 2, 3] 1, b2, b3, b5, 5, 6, b7

[1, 3, 2, 1] 1, b2, b3, b5, 5, 6, b7

[1, 2, 3, 1] 1, b2, b3, b5, 5, 6, b7
CHAPTER 23. MINOR SEVENTH

[1, 3, 2, 3] 1, b2, b3, b5, 5, 6, b7

[1, 3, 2] 1, b2, 2, b3, 4, b5, 5, 6

[1, 2, 3] 1, b2, 2, b3, 4, b5, 5, 6

[1, 3, 2, 1] 1, b2, 2, b3, 4, b5, 5, 6
### CHAPTER 23. MINOR SEVENTH

#### [1, 4, 3, 2] 1, b₂, 2, b₃, 4, b₅, 5, b₆, 6

![Musical notation](image1)

#### [1, 3, 2, 4] 1, b₂, 2, b₃, 4, b₅, 5, b₆, 6

![Musical notation](image2)

#### [1, 2, 3, 4] 1, b₂, 2, b₃, 4, b₅, 5, b₆, 6

![Musical notation](image3)

#### [1, 3, 2] 1, 2, b₃, 3, 4, 5, 6, 7

![Musical notation](image4)
CHAPTER 23. MINOR SEVENTH

\[ [1, 3, 2, 4] \ 1, b2, b3, 3, 4, b5, 5, b6, 6, 7 \]

\[ [1, 2, 3, 4] \ 1, b2, b3, 3, 4, b5, 5, b6, 6, 7 \]

\[ [1, 3, 2, 1] \ 1, b3, 4, b5, 5, b6, b7 \]

\[ [1, 2, 3, 1] \ 1, b3, 4, b5, 5, b6, b7 \]
CHAPTER 23. MINOR SEVENTH

[1, 3, 2, 3] 1, b2, b3, 4, b5, 5, b6, 6

[1, 2, 1] 1, b3, 3, 5, 7

[1, 3, 4, 2] 1, b2, 2, b3, 3, 4, b5, 5, 6, 7

[1, 4, 3, 2] 1, b2, 2, b3, 3, 4, b5, 5, 6, 7
CHAPTER 23. MINOR SEVENTH

[1, 2, 3, 1] 1, 2, b3, 4, 5, b6, 6

[1, 2, 3, 2] 1, 2, b3, 4, 5, b6, 6

[1, 2, 1] 1, b2, b3, b5, 5, 6

[1, 2, 1] 1, b3, 4, 5, b6
Half Diminished Arpeggio

Base

Patterns

[1, 2, 3]  1, 2, b3, 4, b5, b6, b7, 7
CHAPTER 24. HALF DIMINISHED ARPEGGIO

[1, 3, 2, 1] 1, 2, b3, 4, b5, b6, b7, 7

[1, 2, 3, 1] 1, 2, b3, 4, b5, b6, b7, 7

[1, 3, 2, 3] 1, 2, b3, 4, b5, b6, b7, 7

[1, 3, 2, 4] 1, 2, b3, 3, 4, b5, 5, b6, 6, b7
[1, 2, 3, 4] 1, 2, b3, 3, 4, b5, 5, b6, 6, b7

[1, 2, 3] 1, 2, b3, 3, 4, b5, b6, 6, b7

[1, 3, 2, 1] 1, 2, b3, 3, 4, b5, b6, 6, b7

[1, 2, 3, 1] 1, 2, b3, 3, 4, b5, b6, 6, b7
CHAPTER 24. HALF DIMINISHED ARPEGGIO

[1, 3, 2, 3] 1, 2, b3, 3, 4, b5, b6, 6, b7

[1, 2, 3] 1, b2, b3, 4, b5, b6, 6, b7, 7

[1, 3, 2, 1] 1, b2, b3, 4, b5, b6, 6, b7, 7

[1, 2, 3, 1] 1, b2, b3, 4, b5, b6, 6, b7, 7
CHAPTER 24. HALF DIMINISHED ARPEGGIO

\[ \{1, 2, 3, 1\} \quad 1, b2, b3, 3, b5, 6, b7 \]

\[ \{1, 2, 3, 1\} \quad 1, b2, b3, 3, b5, 6, b7 \]

\[ \{1, 3, 2, 1\} \quad 1, 2, b3, 3, 4, b5, 5, b6, b7 \]

\[ \{1, 2, 3, 1\} \quad 1, 2, b3, 3, 4, b5, 5, b6, b7 \]
\[ \text{[1, 2, 1]} \quad 1, b3, 3, b5, 6, b7 \]

\[ \text{[1, 2, 1]} \quad 1, 2, b3, 3, b5, 5, b7 \]

\[ \text{[1, 2, 1]} \quad 1, b2, b3, b5, 6, b7 \]

\[ \text{[1, 2, 3]} \quad 1, 2, b3, 3, b5, 5, 6, b7 \]
CHAPTER 24. HALF DIMINISHED ARPEGGIO
1, 2, b3, 3, 4, b5, b6, 6, b7, 7

1, 2, b3, 3, 4, b5, b6, 6, b7, 7

1, 2, b3, 3, 4, b5, b6, 6, b7, 7

1, 2, b3, 3, 4, b5, b6, 6, b7, 7
CHAPTER 24. HALF DIMINISHED ARPEGGIO

[1, 3, 2] 1, b3, 3, 4, b5, 6, b7, 7

[1, 2, 3] 1, b3, 3, 4, b5, 6, b7, 7

[1, 3, 2, 1] 1, b3, 3, 4, b5, 6, b7, 7

[1, 2, 3, 1] 1, b3, 3, 4, b5, 6, b7, 7
CHAPTER 24. HALF DIMINISHED ARPEGGIO

\[\begin{bmatrix}
[1, 3, 2, 4] & 1, b2, b3, 3, 4, b5, 6, b7, 7 \\
\end{bmatrix}\]

\[\begin{bmatrix}
[1, 2, 3, 4] & 1, b2, b3, 3, 4, b5, 6, b7, 7 \\
\end{bmatrix}\]

\[\begin{bmatrix}
[1, 4, 2, 3] & 1, 2, b3, 3, 4, b5, 5, b6, 6, b7, 7 \\
\end{bmatrix}\]

\[\begin{bmatrix}
[1, 2, 4, 3] & 1, 2, b3, 3, 4, b5, 5, b6, 6, b7, 7 \\
\end{bmatrix}\]
[1, 3, 2, 4] 1, 2, b3, 3, 4, b5, 5, b6, 6, b7, 7

[1, 2, 3, 4] 1, 2, b3, 3, 4, b5, 5, b6, 6, b7, 7
Common Pentatonic

Base

Patterns

[1, 2, 1]  1, 2, 3, 4, 5, 6
CHAPTER 25. COMMON PENTATONIC

\[ [1, 2, 1] \hspace{1em} 1, b2, 2, b3, 3, b5, 5, b6, 6, b7 \]

\[ [1, 2, 1] \hspace{1em} 1, b2, 2, 3, b5, 5, b6, 6, 7 \]

\[ [1, 2, 3] \hspace{1em} 1, b2, 2, 3, b5, 5, b6, 6, 7 \]
[1, 3, 2, 1]  1, b2, 2, 3, b5, 5, b6, 6, 7

[1, 2, 3, 1]  1, b2, 2, 3, b5, 5, b6, 6, 7
CHAPTER 25. COMMON PENTATONIC

[1, 3, 2, 3] 1, b2, 2, 3, b5, 5, b6, 6, 7

[1, 2, 3] 1, 2, 3, 4, b5, 5, 6, 7

[1, 3, 2, 1] 1, 2, 3, 4, b5, 5, 6, 7
CHAPTER 25. COMMON PENTATONIC

\[1, 2, 1\] 1, 2, b3, 3, 4, 5, 6, b7

\[1, 2, 3\] 1, 2, b3, 3, 4, 5, 6, b7

\[1, 3, 2\] 1, 2, b3, 3, 4, 5, 6, b7
[1, 2, 3, 1] 1, 2, b3, 3, 4, 5, 6, b7

[1, 3, 2, 3] 1, 2, b3, 3, 4, 5, 6, b7
[1, 2, 3, 1] 1, b₂, 2, b₃, 3, b₅, 5, b₆, 6, b₇, 7

[1, 2, 3, 2] 1, b₂, 2, b₃, 3, b₅, 5, b₆, 6, b₇, 7
CHAPTER 25. COMMON PENTATONIC

[1, 3, 2, 3]  1, b2, 2, b3, 3, b5, 5, b6, 6, b7, 7

[1, 2, 3]  1, b2, 2, b3, 3, b5, 5, b6, 6, b7, 7
[1, 3, 2, 1] 1, b2, 2, b3, 3, b5, 5, b6, 6, b7, 7
CHAPTER 25. COMMON PENTATONIC

\[ [1, 3, 2, 3] \quad 1, \ b2, \ 2, \ b3, \ 3, \ b5, \ 5, \ b6, \ 6, \ b7, \ 7 \]

\[ [1, 4, 2, 3] \quad 1, \ b2, \ 2, \ b3, \ 3, \ b5, \ 5, \ b6, \ 6, \ b7, \ 7 \]
[1, 2, 4, 3] 1, b2, 2, b3, 3, b5, 5, b6, 6, b7, 7

[1, 3, 2, 4] 1, b2, 2, b3, 3, b5, 5, b6, 6, b7, 7
CHAPTER 25. COMMON PENTATONIC

[1, 2, 3, 4] 1, b2, 2, b3, 3, b5, 5, b6, 6, b7, 7

[1, 2, 3] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7

[1, 2, 3] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7
[1, 3, 2, 1] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7

[1, 2, 3, 1] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7
CHAPTER 25. COMMON PENTATONIC

[1, 2, 3, 2] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7

[1, 3, 2, 3] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7
[1, 2, 3] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7

[1, 3, 2, 1] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7
CHAPTER 25. COMMON PENTATONIC

[1, 2, 3, 1] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7

[1, 3, 2, 3] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7
[1, 4, 2, 3] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7

[1, 2, 4, 3] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7
CHAPTER 25. COMMON PENTATONIC

[1, 3, 2, 4] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7

[1, 2, 3, 4] 1, b2, 2, b3, 3, 4, b5, 5, b6, 6, b7
\[\text{[1, 3, 4, 2] Total Chromatic}\]
CHAPTER 25. COMMON PENTATONIC

[1, 4, 2, 3] Total Chromatic

[1, 2, 4, 3] Total Chromatic
[1, 3, 2, 4] Total Chromatic

[1, 2, 3, 4] Total Chromatic
CHAPTER 25. COMMON PENTATONIC

[1, 4, 2, 3] Total Chromatic

\[
\begin{array}{c|c|c|c|c|c|c}
\hline
1 & 2 & 3 & 4 & 5 & 6 & 7 \\
\hline
8 & 9 & 10 & 11 & 12 & 13 & 14 \\
\hline
\end{array}
\]

[1, 2, 4, 3] Total Chromatic

\[
\begin{array}{c|c|c|c|c|c|c}
\hline
1 & 2 & 3 & 4 & 5 & 6 & 7 \\
\hline
8 & 9 & 10 & 11 & 12 & 13 & 14 \\
\hline
\end{array}
\]
Major Scale

Base

Patterns

\[ [1, 2, 1] \quad 1, 2, 3, 4, 5, 6, 7 \]
CHAPTER 26. MAJOR SCALE

[1, 2, 1] 1, 2, b3, 3, 4, 5, b6, 6, b7, 7

[1, 3, 2] 1, 2, b3, 3, 4, 5, b6, 6, b7, 7
CHAPTER 26. MAJOR SCALE

[1, 2, 3, 1] 1, 2, b3, 3, 4, 5, b6, 6, b7, 7

[1, 2, 3, 2] 1, 2, b3, 3, 4, 5, b6, 6, b7, 7
### Chapter 26. Major Scale

1, 3, 2, 1, b2, 2, 3, 4, b5, 5, 6, b7, 7

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<tr>
<td>Bass</td>
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#### Sheet Music

```
[| ||| |1, 3, 2, 1| 1, b2, 2, 3, 4, b5, 5, 6, b7, 7

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</tr>
<tr>
<td>Bass</td>
<td>E, G, B, D, F♯, A, D♭, G♯</td>
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```
[| ||| |1, 2, 3, 1| 1, b2, 2, 3, 4, b5, 5, 6, b7, 7

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<tr>
<td>Bass</td>
<td>E, G, B, D, F♯, A, D♭, G♯</td>
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#### Sheet Music

```
[| ||| |1, 3, 2, 1| 1, b2, 2, 3, 4, b5, 5, 6, b7, 7

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<td>E, G, B, D, F♯, A, D♭, G♯</td>
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[| ||| |1, 2, 3, 1| 1, b2, 2, 3, 4, b5, 5, 6, b7, 7

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</tr>
<tr>
<td>Bass</td>
<td>E, G, B, D, F♯, A, D♭, G♯</td>
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CHAPTER 26. MAJOR SCALE

[1, 2, 3]  1, b2, 2, b3, 3, 4, b5, 5, b6, 6, 7

[1, 3, 2, 1]  1, b2, 2, b3, 3, 4, b5, 5, b6, 6, 7
CHAPTER 26. MAJOR SCALE

[1, 2, 1] 1, 2, 3, 4, 5, 6, b7, 7

Total Chromatic
[1, 3, 2] Total Chromatic

\[\text{Diagram 1}\]

\[\text{Diagram 2}\]

[1, 2, 3] Total Chromatic

\[\text{Diagram 3}\]

\[\text{Diagram 4}\]
CHAPTER 26. MAJOR SCALE

[| [1, 3, 2, 1] Total Chromatic |

\[ [\text{\textcopyright 2020 MusE Ltd.}] \]

\[ [\text{\textcopyright 2020 MusE Ltd.}] \]

\[ [\text{\textcopyright 2020 MusE Ltd.}] \]
| 1, 2, 3 | 1, 3, 2 |

**Total Chromatic**

```plaintext

| 1, 2, 3 | 1, 3, 2 |

**Total Chromatic**

```
CHAPTER 26. MAJOR SCALE

[1, 3, 2] Total Chromatic

[1, 2, 3] Total Chromatic
[1, 3, 2, 1] Total Chromatic

[1, 2, 3, 1] Total Chromatic
CHAPTER 26. MAJOR SCALE

[1, 2, 3, 2] Total Chromatic

[1, 3, 2, 3] Total Chromatic
[1, 3, 2, 1] Total Chromatic

[1, 2, 3, 1] Total Chromatic
CHAPTER 26. MAJOR SCALE

[1, 2, 3] Total Chromatic

[1, 3, 2, 1] Total Chromatic
CHAPTER 26. MAJOR SCALE

[1, 3, 4, 2] Total Chromatic

[1, 4, 3, 2] Total Chromatic
[1, 4, 2, 3] Total Chromatic

[1, 2, 3] Total Chromatic
CHAPTER 26. MAJOR SCALE

[1, 3, 2, 4] Total Chromatic

[1, 2, 3, 4] Total Chromatic
[1, 3, 4, 2] Total Chromatic
CHAPTER 26. MAJOR SCALE

\[1, 4, 2, 3\] Total Chromatic

\[1, 2, 4, 3\] Total Chromatic
[1, 3, 2, 4] Total Chromatic

[1, 2, 3, 4] Total Chromatic
CHAPTER 26. MAJOR SCALE

[1, 4, 2, 3] Total Chromatic

[1, 2, 4, 3] Total Chromatic
[1, 3, 2, 4] Total Chromatic

[1, 2, 3, 4] Total Chromatic
CHAPTER 26. MAJOR SCALE

[1, 4, 2, 3] Total Chromatic

[1, 2, 4, 3] Total Chromatic
Nicolas Slonimsky’s *Thesaurus of Scales and Melodic Patterns* is a legendary book that has inspired musicians as diverse as John Coltrane, Frank Zappa and Buckethead. Many musicians own a copy yet are unsure what to do with it and how to unlock the many ideas it contains.

This book presents a completely new approach to the same idea. It does not reproduce anything in Slonimsky’s original book but supplements it by giving a detailed theoretical explanation of what’s really going on in its first twelve chapters, then deriving new patterns from the same method.

The patterns in the first part are organised by pitch content so that players working in a harmonic context can easily find patterns that outline particular scales and arpeggios.

The second part collects patterns that contain all twelve notes, and the third uses “non-symmetrical bases” to suggest a world of new sounds.

Used alongside Slonimsky’s *Thesaurus*, this book is a source for practical and easy-to-apply patterns for all advanced musicians looking for a way into his sound-world. All patterns are written out in conventional notation and guitar tab.

Rich Cochrane has been playing and teaching guitar for more than twenty-five years, most recently at Greenwich Community College in London. He has a degree in Mathematics and a PhD in the philosophy of music. As well as live and studio experience with a variety of bands he makes electronic music and has soundtracked two short films. He has also published a large quantity of writing about music.